



**UNITED STATES DEPARTMENT OF COMMERCE**  
**Patent and Trademark Office**

**NOTICE OF ALLOWANCE AND ISSUE FEE DUE**

13M170196

NIXON & VANDERHYE  
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 ALEXINGTON, VA 24301

APPLICATION NO.	FILING DATE	TOTAL CLAIMS	EXAMINER AND GROUP/ART UNIT	DATE MAILED
08/7086-112	10/24/96	021	LEKIVITI, S	1303
First Named Applicant	EFT CURREN		GLIVE, R.	01/06/98

**TITLE OF INVENTION** CLEANING/DEAULGER MATERIAL USING HIGH ALKALI CONCENTRATIONS AND/OR HIGH PH DURING THE TIME OF THE WASH

ATTY'S DOCKET NO.	CLASS-SUBCLASS	BATCH NO.	APPLN. TYPE	SMALL ENTITY	FEES DUE	DATE DUE
1 10-1196	162-034,000	W	Utility	NO	41320.00	01/06/98

**THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT.  
 PROSECUTION ON THE MERITS IS CLOSED.**

**THE ISSUE FEE MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED.**

**HOW TO RESPOND TO THIS NOTICE:**

Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

- A. If the status is changed, pay twice the amount of the FEE DUE shown above and notify the Patent and Trademark Office of the change in status, or
- B. If the status is the same, pay the FEE DUE shown above.

If the SMALL ENTITY is shown as NO:

- A. Pay FEE DUE shown above, or

- B. File verified statement of Small Entity Status before, or with, payment of 1/2 the FEE DUE shown above.

I. Part B-Issue Fee Transmittal should be completed and returned to the Patent and Trademark Office (PTO) with your ISSUE FEE. Even if the ISSUE FEE has already been paid by charge to deposit account, Part B-Issue Fee Transmittal should be completed and returned. If you are charging the ISSUE FEE to your deposit account, section "4b" of Part B-Issue Fee Transmittal should be completed and an extra copy of the form should be submitted.

II. All communications regarding this application must give application number and batch number.

Please direct all communications prior to issuance to Box ISSUE FEE unless advised to the contrary.

**IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.**

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UNITED STATES DEPARTMENT OF COMMERCE  
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Washington, D.C. 20231

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
08/735,112	10/24/96	KETTUNEN	A 10-1198

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10M170106

EXAMINER

LEAVITT, S

ART UNIT  
1303

PAPER NUMBER

DATE MAILED: 01/26/98

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

**Notice of Allowability**

	Application No. <b>08/736,112</b>	Applicant(s)	Kettunen
	Examiner <b>Steven Leavitt</b>	Group Art Unit <b>1303</b>	

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance and Issue Fee Due or other appropriate communication will be mailed in due course.

This communication is responsive to the amendment of Nov 12, 1997.

The allowed claim(s) is/are 1, 3, 6, 8-18, and 22-28.

The drawings filed on \_\_\_\_\_ are acceptable.

Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

All  Some\*  None of the CERTIFIED copies of the priority documents have been received.

received in Application No. (Series Code/Serial Number) \_\_\_\_\_.

received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\*Certified copies not received: \_\_\_\_\_.

Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

A SHORTENED STATUTORY PERIOD FOR RESPONSE to comply with the requirements noted below is set to EXPIRE THREE MONTHS FROM THE "DATE MAILED" of this Office action. Failure to timely comply will result in ABANDONMENT of this application. Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL APPLICATION, PTO-152, which discloses that the oath or declaration is deficient. A SUBSTITUTE OATH OR DECLARATION IS REQUIRED.

Applicant MUST submit NEW FORMAL DRAWINGS

because the originally filed drawings were declared by applicant to be informal.

including changes required by the Notice of Draftsperson's Patent Drawing Review, PTO-948, attached hereto or to Paper No. 4.

including changes required by the proposed drawing correction filed on \_\_\_\_\_, which has been approved by the examiner.

including changes required by the attached Examiner's Amendment/Comment.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the reverse side of the drawings. The drawings should be filed as a separate paper with a transmittal letter addressed to the Official Draftsperson.

Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Any response to this letter should include, in the upper right hand corner, the APPLICATION NUMBER (SERIES CODE/SERIAL NUMBER). If applicant has received a Notice of Allowance and Issue Fee Due, the ISSUE BATCH NUMBER and DATE of the NOTICE OF ALLOWANCE should also be included.

## Attachment(s)

Notice of References Cited, PTO-892

Information Disclosure Statement(s), PTO-1449, Paper No(s). 5

Notice of Draftsperson's Patent Drawing Review, PTO-948

Notice of Informal Patent Application, PTO-152

Interview Summary, PTO-413

Examiner's Amendment/Comment

Examiner's Comment Regarding Requirement for Deposit of Biological Material

Examiner's Statement of Reasons for Allowance

Serial Number: 08/736,112

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Art Unit: 1303

**REASONS FOR ALLOWANCE**

1. The following is an examiner's statement of reasons for allowance: Applicant's invention is an improvement over the prior art in that the amount of effective alkali at the termination of the second cook is higher. Applicant's process is novel in that it yields improvements in the intrinsic strength properties by controlling the effective alkali accordingly.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

2. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Steven B. Leavitt whose telephone number is (703) 305-6929.



Steven B. Leavitt



PETER CHIN  
PRIMARY EXAMINER  
GROUP 1300

January 4, 1998





## UNITED STATES DEPARTMENT OF COMMERCE

## Patent and Trademark Office

Address: COMMISSIONER OF PATENTS AND TRADEMARKS  
Washington, D.C. 20231

APPLICATION NO. 03/738,112	FILING DATE 10/24/98	FIRST NAMED INVENTOR KETTUNEN	ATTORNEY DOCKET NO. A 10-1198
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ARLINGTON VA 22201

13M1/0711

EXAMINER

LEAVITT, S

ART UNIT 1303	PAPER NUMBER
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DATE MAILED: 07/11/97

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

DOCKETED  
 CLT/MATTER # 10-1198  
 MAIL DATE 7-11-97  
 DUE DATE OCT 11 1997  
 FINAL DEADLINE JAN 11 1998  
 DOCKETED BY PCP/CMS

JUL 17 2002

<b>Office Action Summary</b>	Application No. 08/736,112	Applicant(s) Kettunen
	Examiner Steven B. Leavitt	Group Art Unit 1303

Responsive to communication(s) filed on Oct 24, 1996

This action is FINAL.

Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 3 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

#### Disposition of Claims

Claim(s) 1-21 is/are pending in the application.

Of the above, claim(s) 19-21 is/are withdrawn from consideration.

Claim(s) \_\_\_\_\_ is/are allowed.

Claim(s) 1-9 and 12-17 is/are rejected.

Claim(s) 10, 11, and 18 is/are objected to.

Claims \_\_\_\_\_ are subject to restriction or election requirement.

#### Application Papers

See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner.

The proposed drawing correction, filed on \_\_\_\_\_ is  approved  disapproved.

The specification is objected to by the Examiner.

The oath or declaration is objected to by the Examiner.

#### Priority under 35 U.S.C. § 119

Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

All  Some\*  None of the CERTIFIED copies of the priority documents have been received.

received in Application No. (Series Code/Serial Number) \_\_\_\_\_.

received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\*Certified copies not received: \_\_\_\_\_

Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

#### Attachment(s)

Notice of References Cited, PTO-892

Information Disclosure Statement(s), PTO-1449, Paper No(s). \_\_\_\_\_

Interview Summary, PTO-413

Notice of Draftsperson's Patent Drawing Review, PTO-948

Notice of Informal Patent Application, PTO-152

-- SEE OFFICE ACTION ON THE FOLLOWING PAGES --

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*Ignore Go to Part II on page 1074!***DETAILED ACTION*****Election/Restriction***

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
  - I. Claims 1-18, drawn to a method of producing chemical pulp, classified in class 162, subclass 90.
  - II. Claims 19-21, drawn to a continuous digester, classified in class 162, subclass 237.
2. The inventions are distinct, each from the other because of the following reasons:  
Inventions a method of producing chemical pulp and a continuous digester are related as process and apparatus for its practice. The inventions are distinct if it can be shown that either: (1) the process as claimed can be practiced by another materially different apparatus or by hand, or (2) the apparatus as claimed can be used to practice another and materially different process. (MPEP § 806.05(e)). In this case, the process can be practiced by a materially different apparatus. The digester is a hydraulic or vapor phase digester in a vertical vessel. The method could be practiced however in a different type of digester such as a horizontal vessel for example.
3. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.
4. During a telephone conversation with Jeffry Nelson on July 1, 1997 a provisional election was made with traverse to prosecute the invention of a method of producing chemical pulp,

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claims 1-18. Affirmation of this election must be made by applicant in responding to this Office action. Claims 19-21 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

*Specification*

5. The disclosure is objected to because of the following informalities:

On page 3, line 16, change "gives" to --yield--.

On page 5, line 4, change "convention" to --conventional--.

Appropriate correction is required.

6. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

*Claim Rejections - 35 USC § 112*

7. Claims 13 and 14 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. It is unclear what is meant by "at least 9% on wood".

Claim 14 is rejected for the reason stated above.

*Claim Rejections - 35 USC § 102 & 35 USC § 103*

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

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A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

10. Claims 1, 2, and 8 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Li (U.S. Patent No. 5,522,958). Li discloses a method of producing chemical cellulose pulp using a continuous digester. See abstract and column 3, line 43. Step (a) is inherent in that a continuous digester is known in the industry to be fed with a liquid slurry of fibrous material. With step (b), the cooking occurs for more than 30 minutes within the temperature range claimed by applicant. See figure 3. The effective alkali ("EA") is above the limit claimed by applicant (column 4, line 29). While the Li does not specifically state that the EA is measured within the last minute of the cook, it is inherent or in the alternative would have been obvious to one of ordinary skill in the art that if the EA at the end of the cook is above the EA claimed by applicant then one minute prior to the termination of the cook, the EA would have been even greater. This is because as the cook continues the alkali is consumed.

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With claim 2, it is shown in figure 3 that the EA within the last 15 minutes of the cook is between the range claimed.

The distribution of claim 8 of the total alkali added is shown in Li (column 12, line 28). Li discloses that as little as 40% of the total alkali is added in the first step which therefore would result in 60% being added after the first step.

11. Claims 3-7, 9, 12, and 15-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Li. The invention is disclosed as described above except for the range of EA claimed. However, it would have been obvious to one of ordinary skill in the art that the range claimed need only be achieved by adding additional alkali. The addition therefore would produce no more than the expected result of higher alkali. Applicant is maintaining the EA throughout the cook for the same reason as applicant. To adjust the EA to within the range claimed by applicant would have been achievable through routine experimentation.

With claim 4, it would have been obvious to one of ordinary skill in the art that the EA range claimed would have been attainable given that which is disclosed by Li (column 4, line 42).

Claims 5-7 are disclosed as revealed above.

With claim 9, it would have been obvious to one of ordinary skill in the art that to increase the total alkali added after the first location by a small margin would achieve no more than the expected result of having a higher EA at the end of the cook. Li has recognized that the lower initial EA with a higher EA towards the end of the cook results in stronger fibers. Therefore, to

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increase the alkali toward the end of the cook would have been achievable through routine experimentation.

The step of adding at more than two locations for claim 12 would have been obvious to one of ordinary skill in the art because to add an additional step of withdrawing liquor and re-adding with a higher EA would produce no more than the expected result of producing digested cellulosic material with improved strength.

Claims 15-17 are revealed as disclosed above.

#### *Claim Objections*

12. Claims 10, 11, and 18 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

#### *Conclusion*

13. Any inquiry concerning this communication from the examiner should be directed to Examiner Steven B. Leavitt, whose telephone number is (703) 305-6929. The examiner can normally be reached on Monday - Friday from 7:00 AM - 3:30 PM.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Don Czaja, can be reached on (703) 308-3852. The fax phone number for this Group is (703) 305-7115.

  
Steven B. Leavitt

July 3, 1997

DONALD E. CZAJA  
SUPPLYING PATENT EXAMINER  
GROUP 130

<b>Notice of References Cited</b>		Application No. 08/736,112	Applicant(s) Kettunen			
		Examiner Steven B. Leavitz	Group Art Unit 1303	Page 1 of 1		
<b>U.S. PATENT DOCUMENTS</b>						
	DOCUMENT NO.	DATE	NAME	CLASS	SUBCLASS	
A	5,622,958	6/4/96	Li	162	19	
B						
C						
D						
E						
F						
G						
H						
I						
J						
K						
L						
M						
<b>FOREIGN PATENT DOCUMENTS</b>						
	DOCUMENT NO.	DATE	COUNTRY	NAME	CLASS	SUBCLASS
N						
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Q						
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S						
T						
<b>NON-PATENT DOCUMENTS</b>						
	DOCUMENT (Including Author, Title, Source, and Pertinent Pages)				DATE	
U						
V						
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X						

Sheet 1 of 1

**Examiner: Initial II reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to application.**

**Form PTO-FB-A820 (Also PTO-1449)**